

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

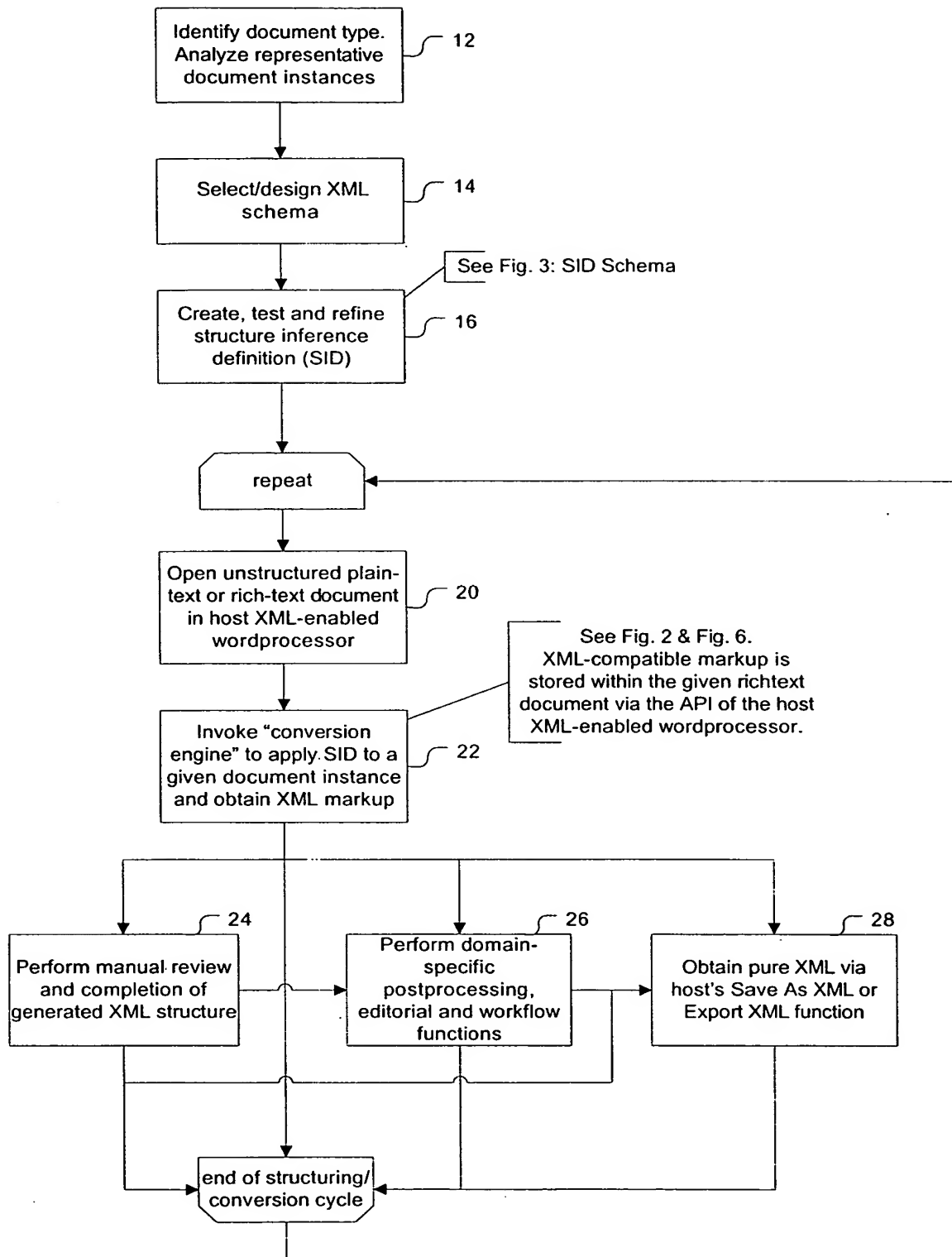
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

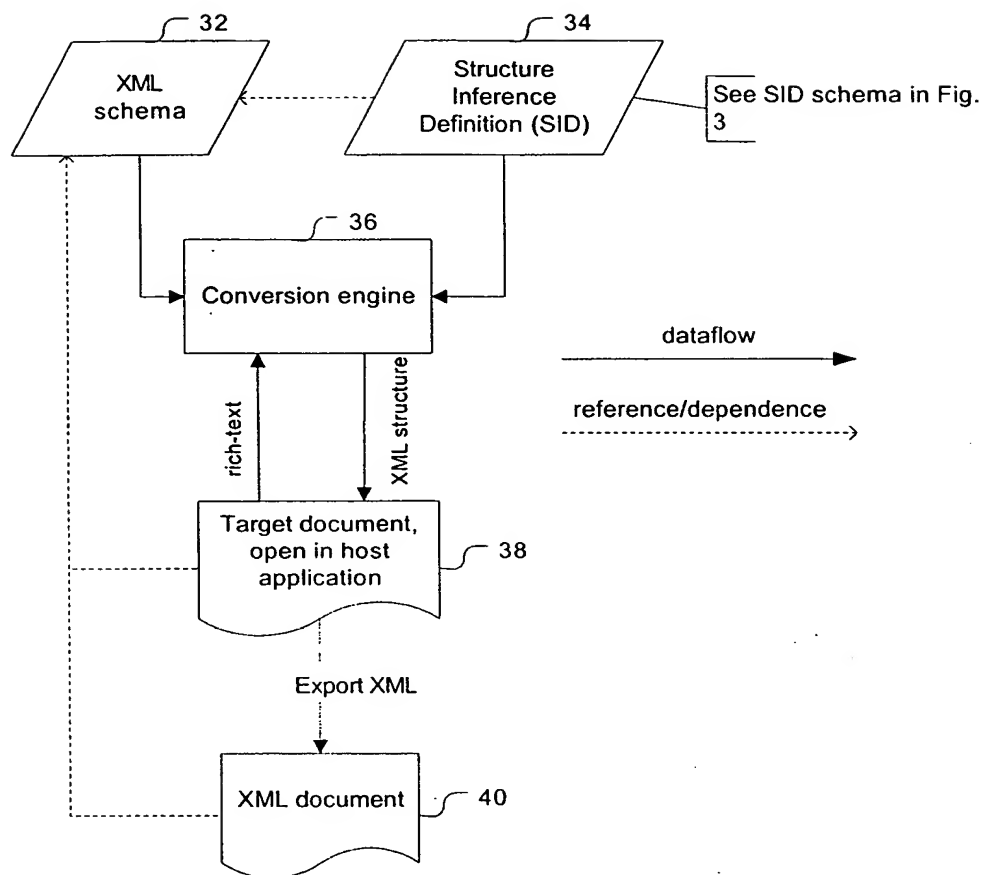
- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



**Figure 1**



**Figure 2**

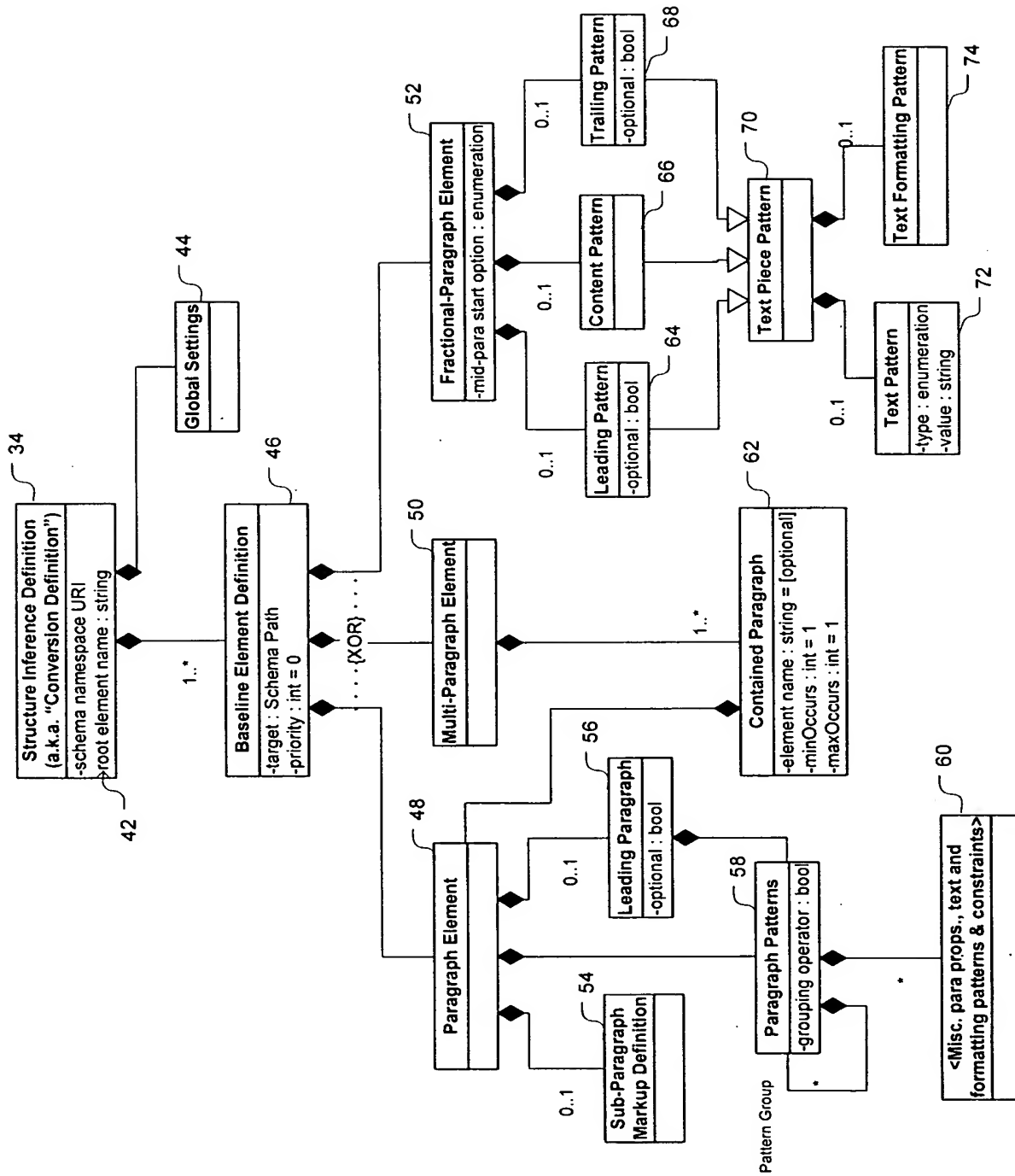


Figure 3: Structure Inference Definition Schema

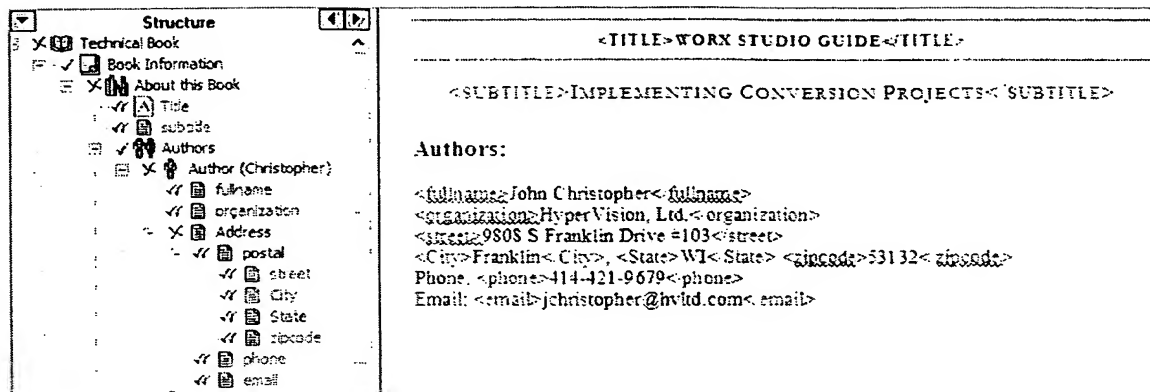


Figure 4: Example of Baseline Elements

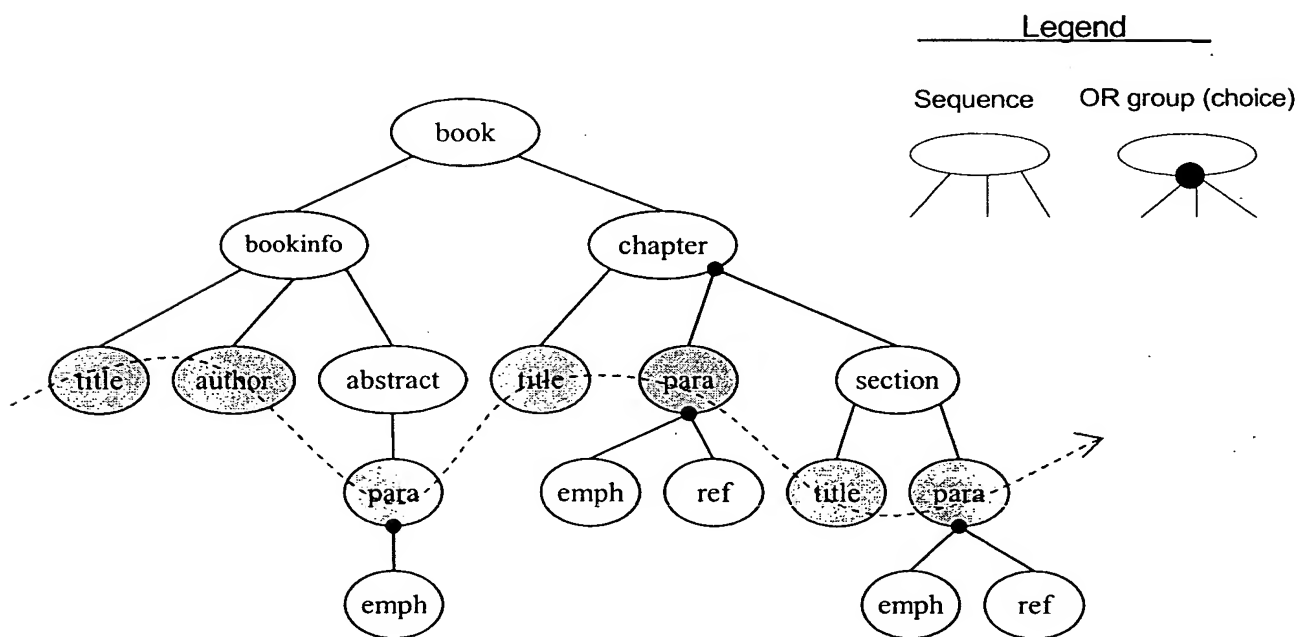


Figure 5: Example of Element Baseline in a document schema

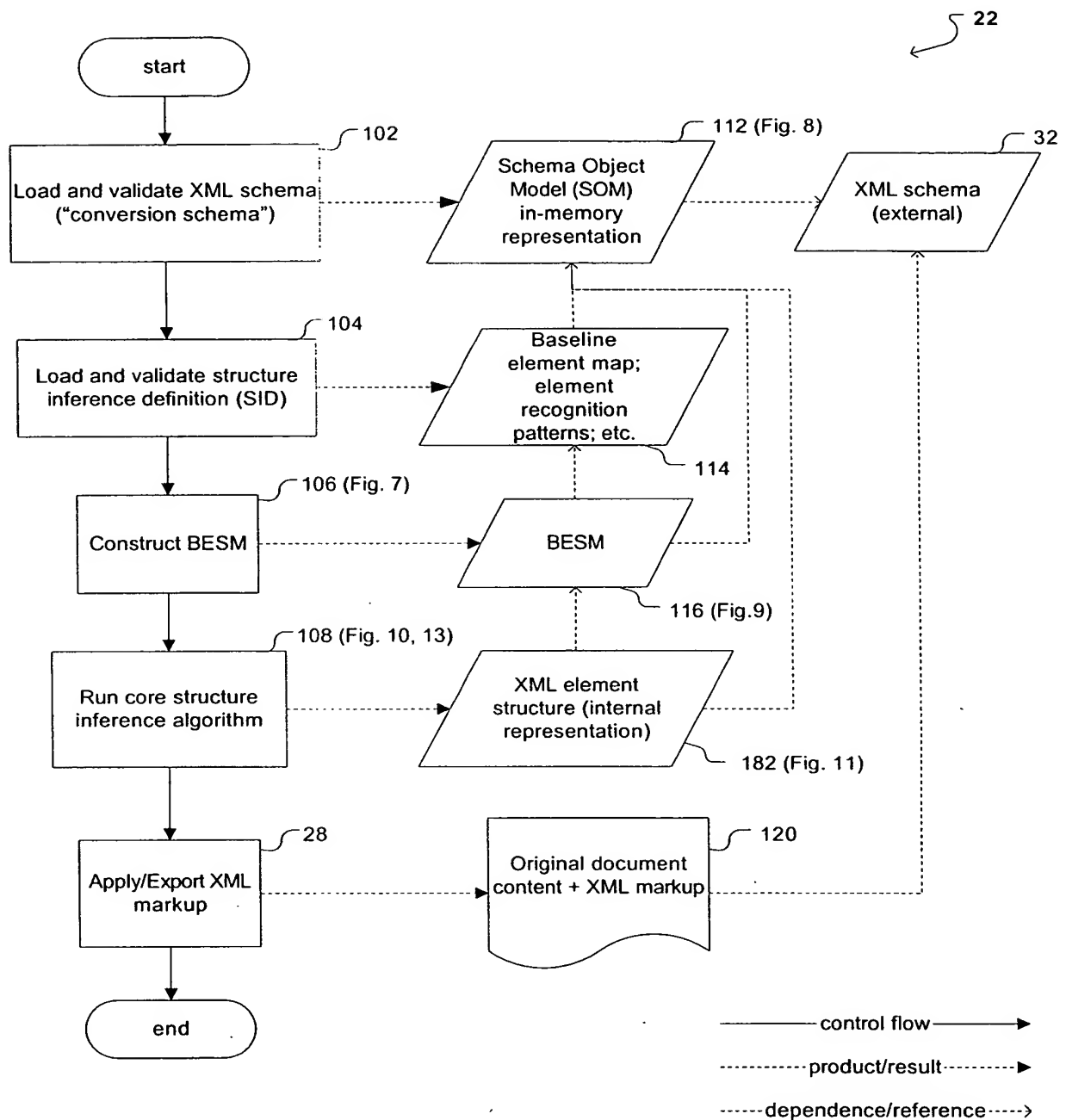


Figure 6: Conversion/structuring process: document parsing, structure inference, and XML markup creation

Fig. 3: 36

CMG = schema content model group

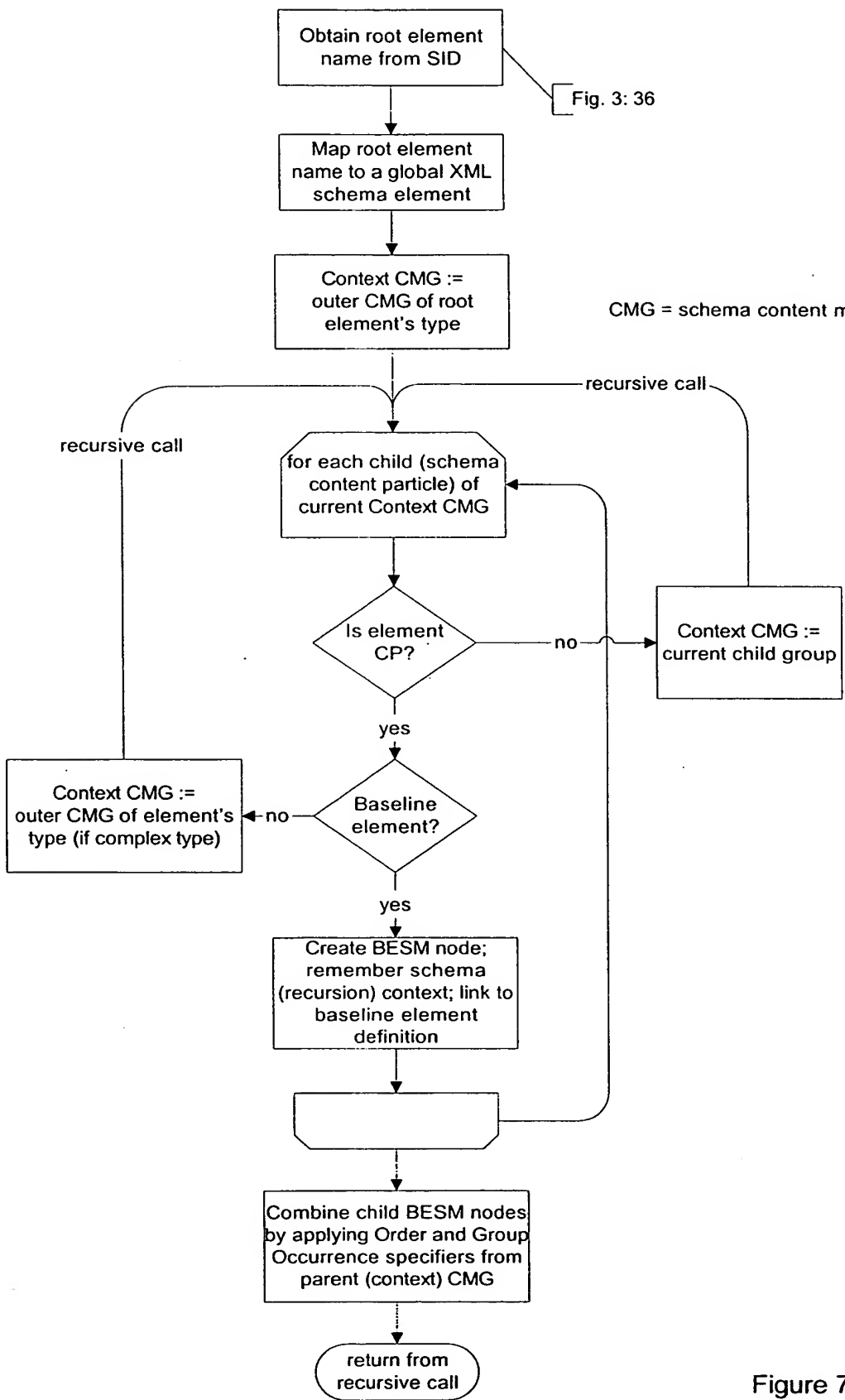


Figure 7. BESM Construction

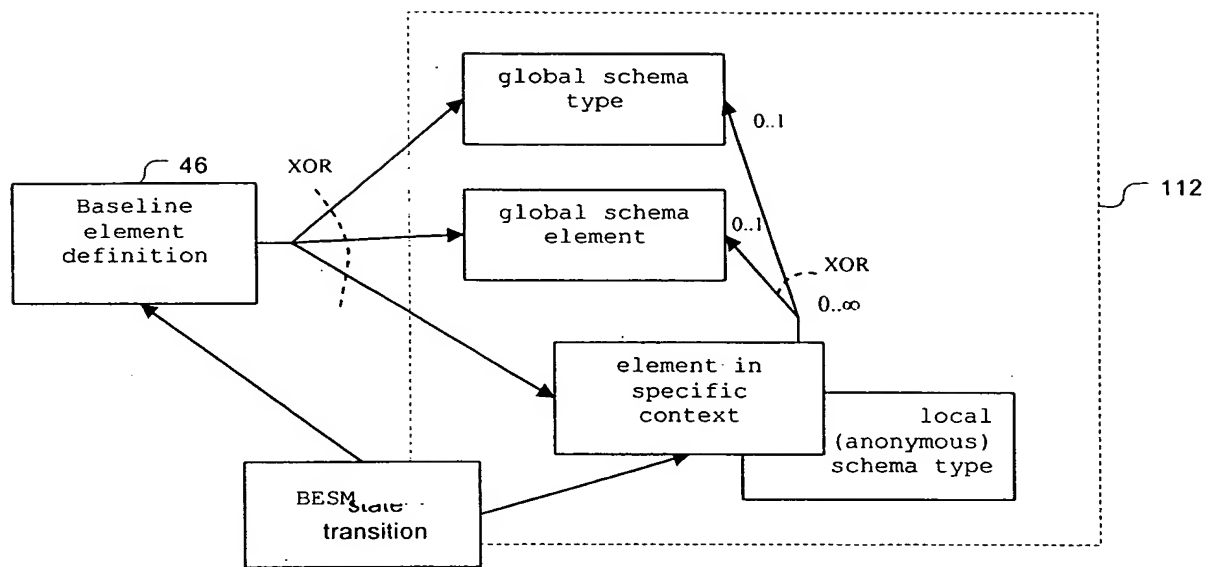
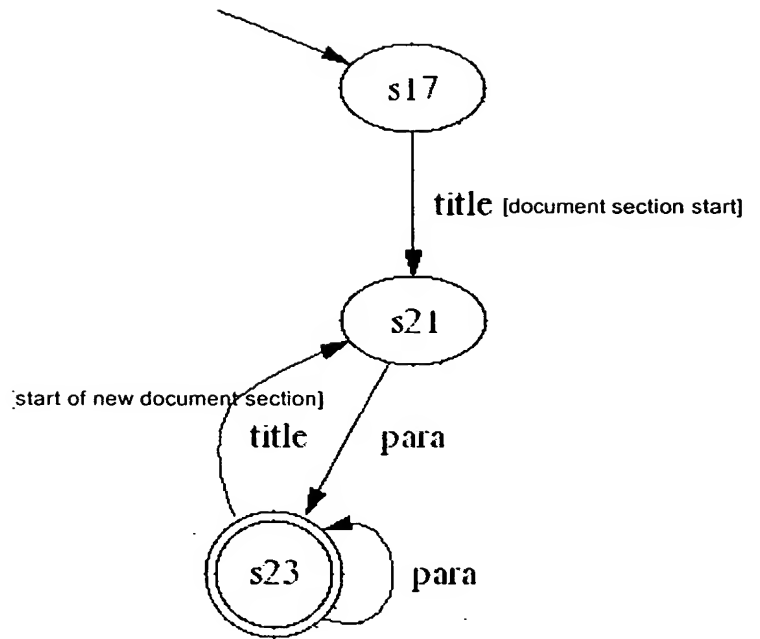
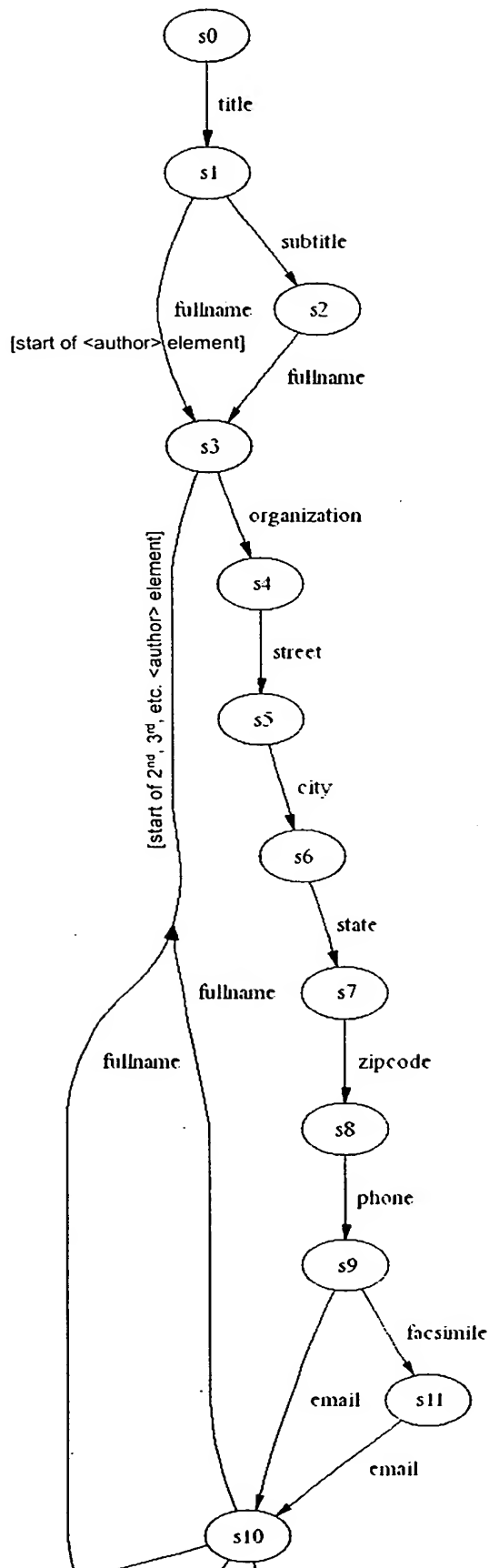


Figure 8. Data-structure relations between baseline elements, the BESM, and the XML schema





Note: The BESM transitions shown here are simple element names. In reality, they are full schema paths (starting from the defined root element).

Figure 9. BESM fragment samples

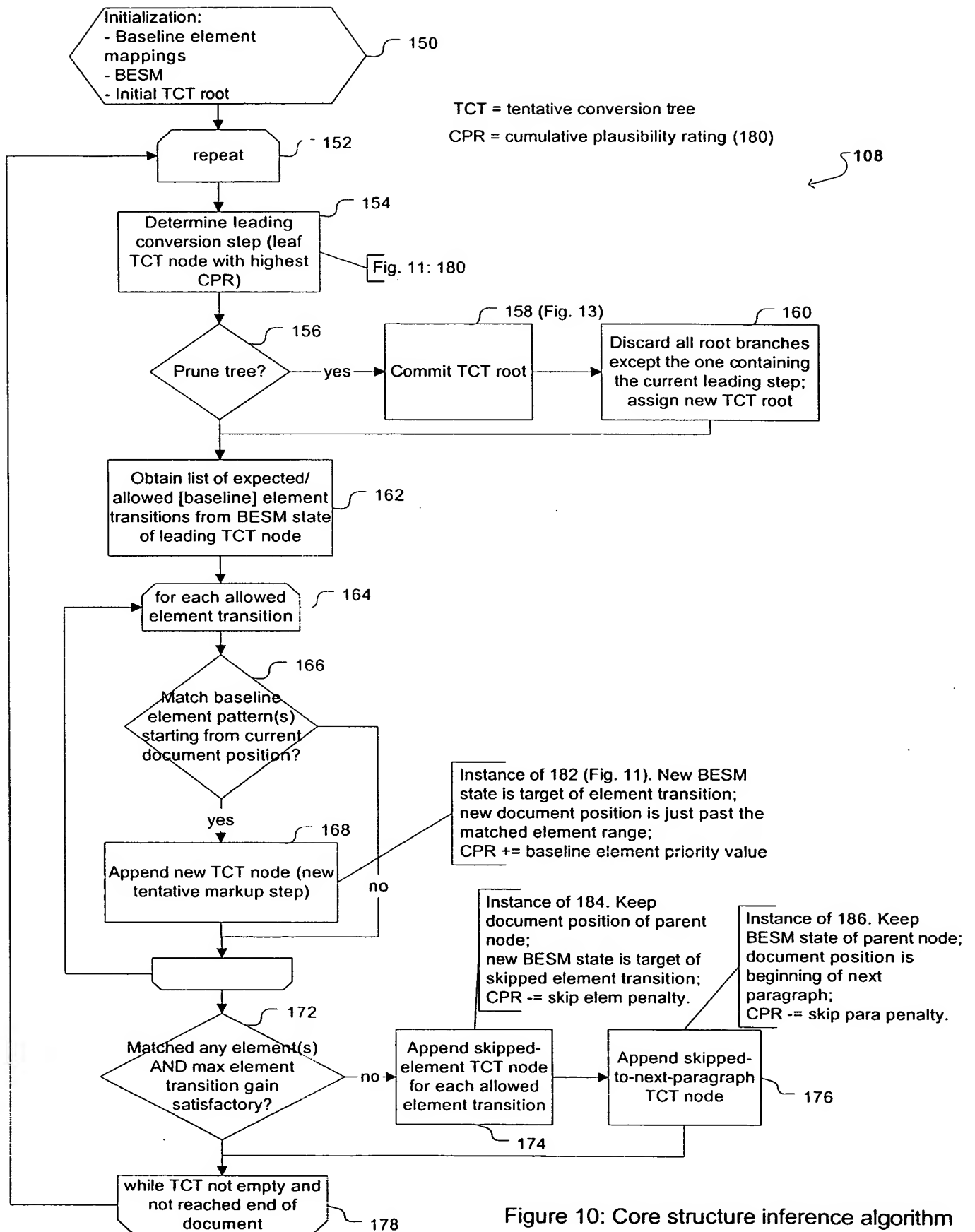


Figure 10: Core structure inference algorithm

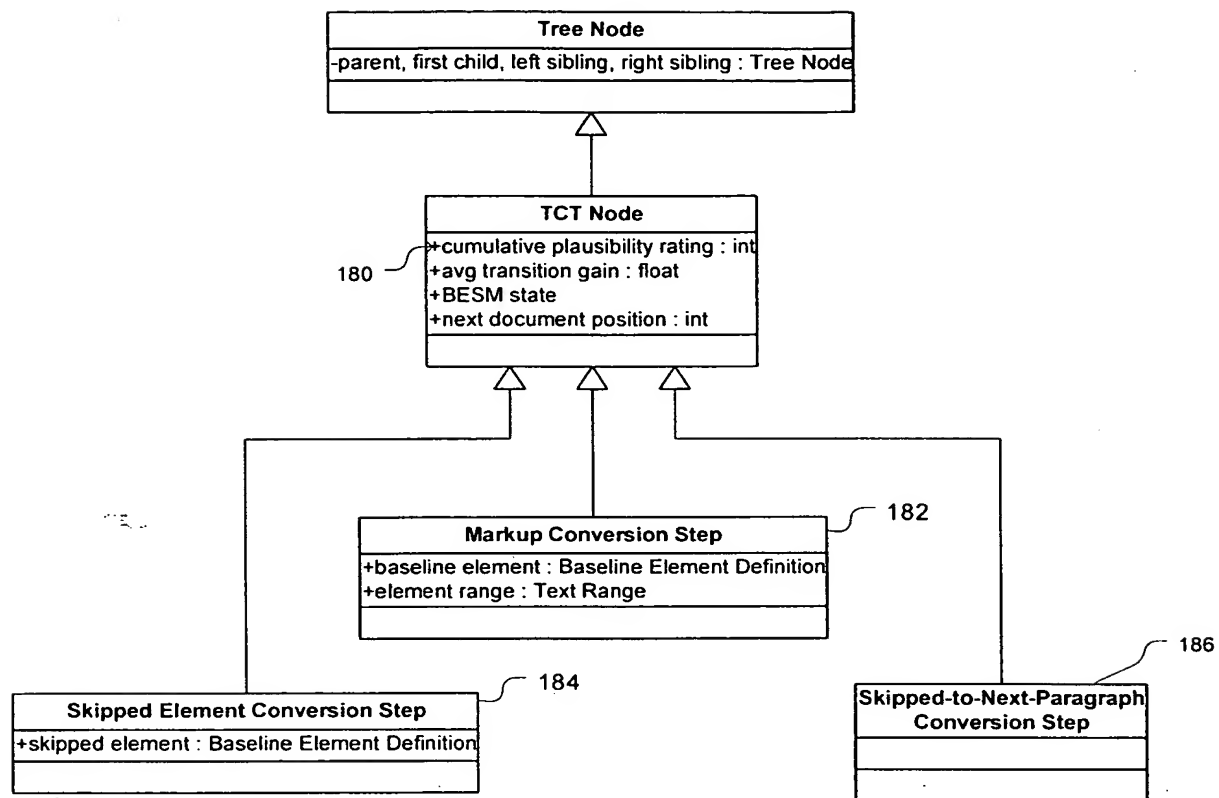


Figure 11. Tentative conversion tree (TCT) nodes, holding information about tentative conversion steps within the core structure inference algorithm

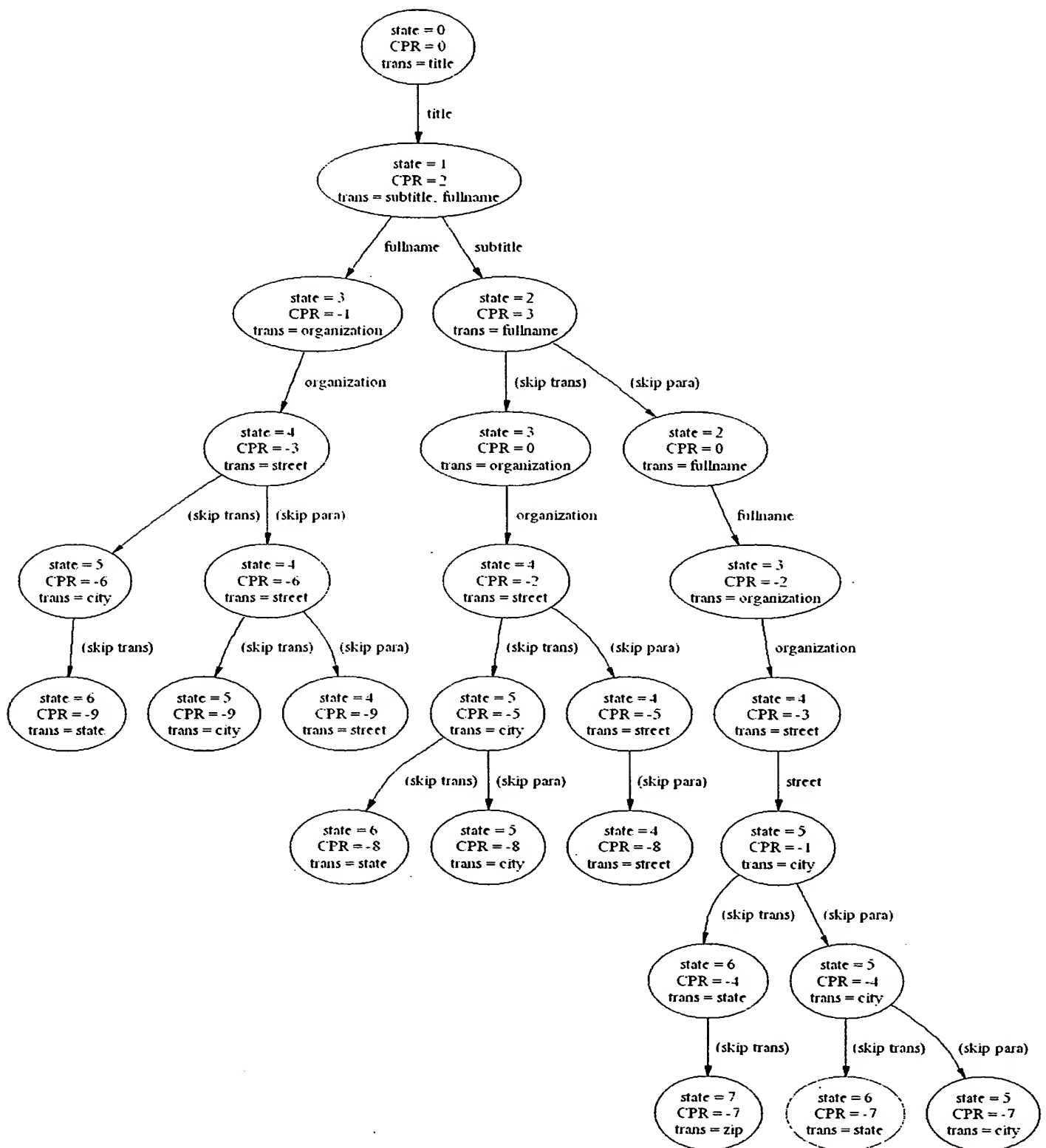


Figure 12: Tentative conversion tree sample

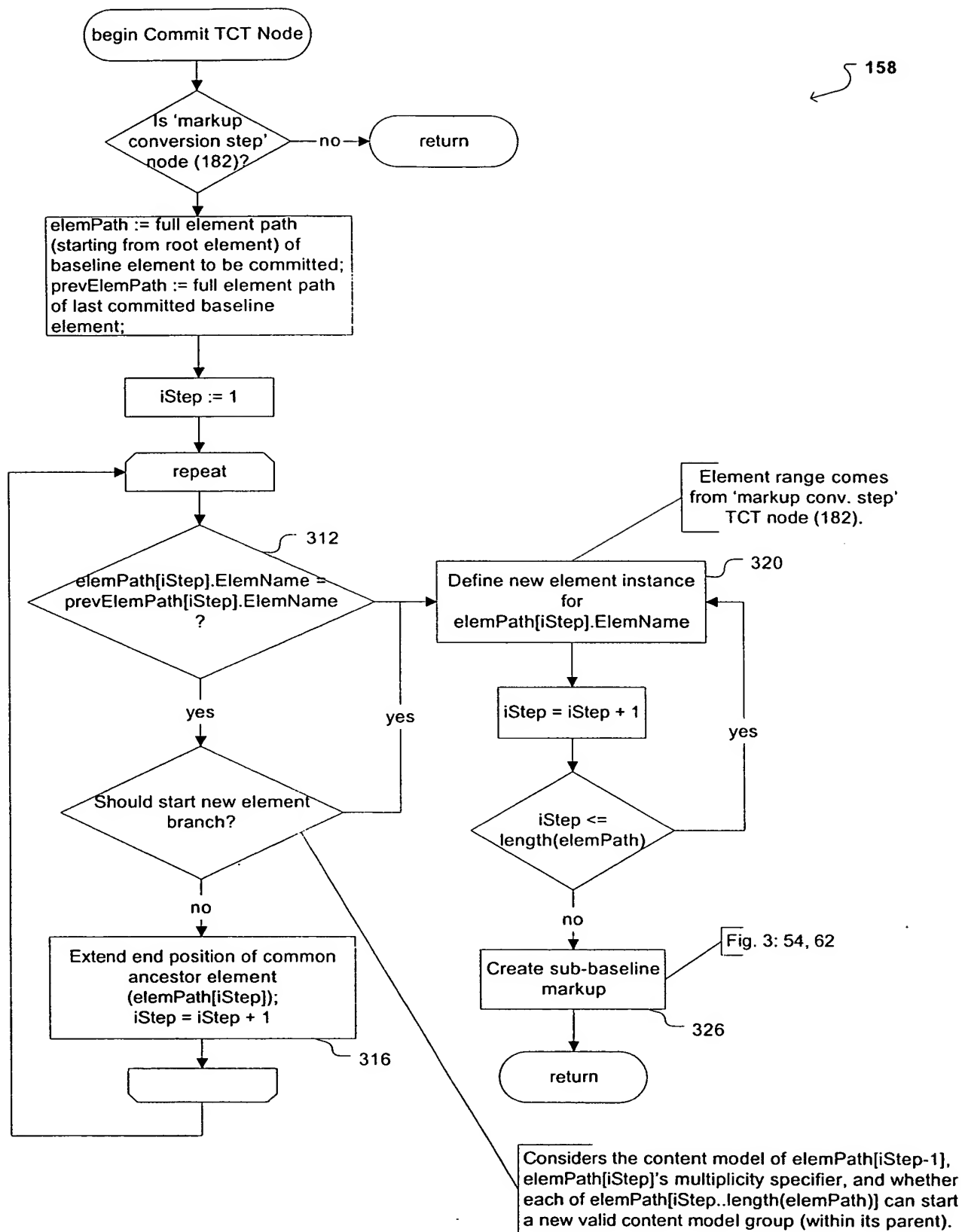


Figure 13. Committing a TCT node: creating a baseline element, inferring and creating higher-level structure, and creating sub-baseline markup

Marked Up: /book/bookinfo/bookbiblio/authorgroup/author/address/email

Conversion State: [document position]; cumulative rating: 20

Expected elements: uri, para, fullname, pubdate, para »

Matched Elements: uri

Marked Up: /book/bookinfo/bookbiblio/authorgroup/author/address/uri

Conversion State: [document position]; cumulative rating: 24

Expected elements: para, fullname, pubdate, para »

Matched Elements: (None)

Skipped to Next Paragraph

Conversion State: [document position]; cumulative rating: 14

Expected elements: para, fullname, pubdate, para »

Matched Elements: fullname

Marked Up: /book/bookinfo/bookbiblio/authorgroup/author[2]/fullname

Conversion State: [document position]; cumulative rating: 9

Expected elements: organization »

Matched Elements: organization

Marked Up: /book/bookinfo/bookbiblio/authorgroup/author[2]/organization

Marked Up: /content/document/section[6]/reference[23]/titlegroup/title

Conversion State: [document position]; cumulative rating: 453

Expected elements: volume, title »

Matched Elements: volume

Marked Up: /content/document/section[6]/reference[23]/volume

Conversion State: [document position]; cumulative rating: 452

Expected elements: page »

Matched Elements: page

Marked Up: /content/document/section[6]/reference[23]/page

Conversion State: [document position]; cumulative rating: 453

Expected elements: number, name, heading »

Matched Elements: (None)

Skipped Element: content/document/section/heading

Conversion State: [document position]; cumulative rating: 442

Expected elements: number, name, p, heading »

Matched Elements: p

Marked Up: /content/document/section[6]/p

Conversion State: [document position]; cumulative rating: 437

Expected elements: p, heading, heading »

Matched Elements: p

Figure 14: Conversion/markup Report samples



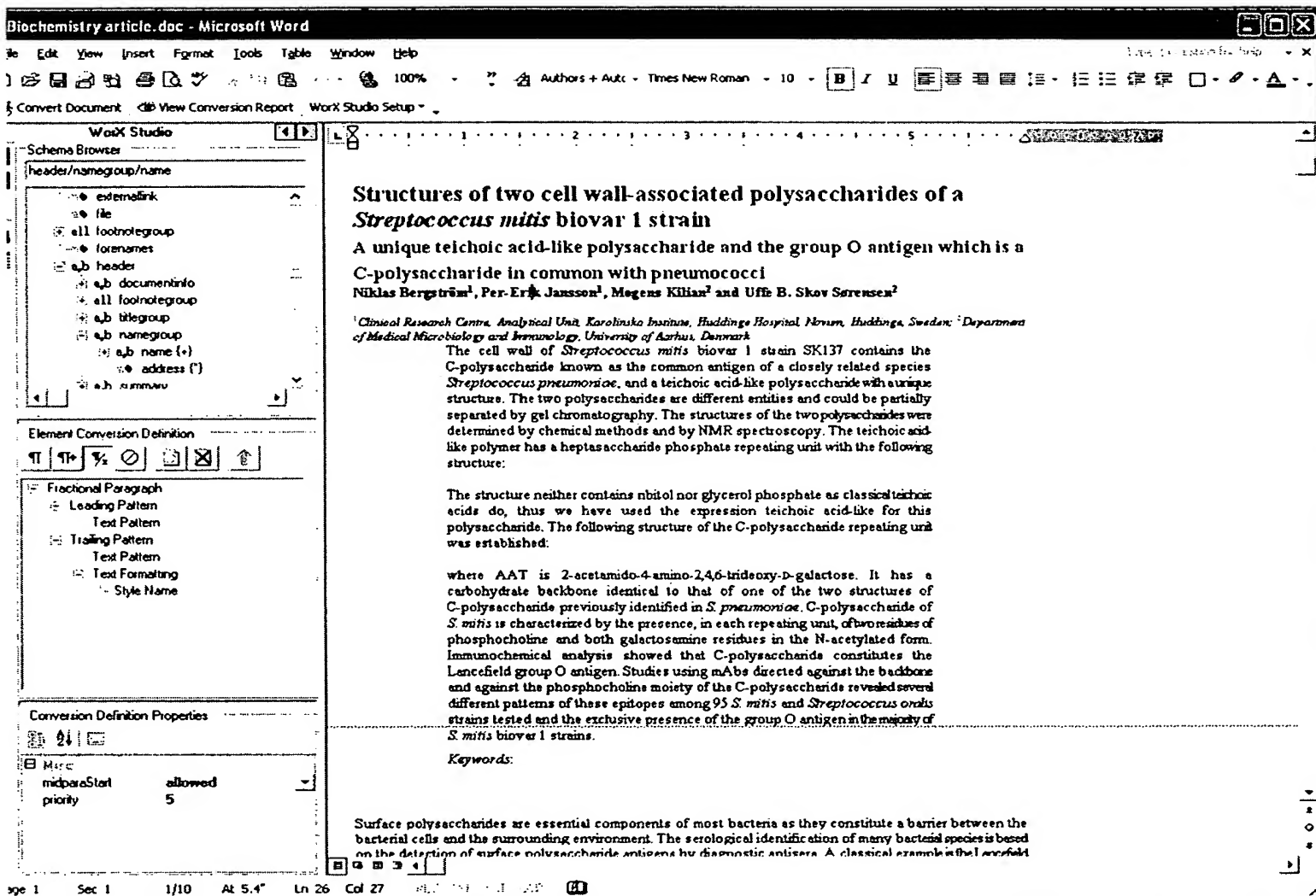


Figure 16